tion would prevent the formation of such a membrane, especially after the cells had lost much of their vitality by being converted into depositions of starchy or other matter. Hence we found but the finest membrane covering the cotyledon faces.

He could not understand how the facts exhibited accorded with the early division into cotyledons by actual growth, as taught in our leading botanical works. For himself, he felt that botanists would yet come to regard *all seeds as non-cotyledonous in their early stages; and that the divisions into cotyledonous lobes was a mechanical result* determined in a great measure by the position of the germinal vesicle without the cotyledonous mass.

Mr. Meehan also referred to remarks he made on a former occasion in regard to the sensitive clasping of the stigmatic divisions of the pistil in *Torenia asiatica.* He had since found the same phenomenon in *Mimulus*, *Lindernia*, and *Diplacus;* allies of the *Torenia.* He did not know that this irritable closing power had been placed on record anywhere; but as there were hybrids of *Mimulus* in cultivation, the fact could not but have been noticed by cultivators at some time. In *Mimulus* the motion was more rapid than in others he had tried.

JUNE 13.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-seven members present.

The following papers were offered for publication:—

"Notice of a new Brachiopod from the Lead-bearing rocks at Mine La Motte, Mo." By F. B. Meek.

"Descriptions of three new species of Exotic Unionidæ." By Isaac Lea.

"Descriptions of twenty new species of Unionidæ of the United States." By Isaac Lea.

Prof. COPE made some extended observations on the supposed orders of *Plectognathi* and *Lophobranchii* of Cuvier, of which the following is an abstract: He stated that, after an examination of their structure, he could not regard them as divisions of equal value with the *Physostomi* and *Physoclysti*, etc. He stated that the *Plectognathi* are *Physoclysti* in all respects, viz., the relations of the supra-occipital to the other cranial bones, the structure of the scapular arch, hyoid and branchial arches, in the relations of the dorsal and ventral fins, structure of basis of caudal fin, of swim-bladder, etc. The family *Teuthyes*, among other *Physoclysti*, formed the nearest approach to them, and that the coalescence of

the bones of the maxillary and mandibular arches is not more important than many other structures found in the same subclass.

He regarded the *Lophobranchii* as a group having the same general affinities with the *Physoclysti*, but aberrant with some other groups in the possession of abdominal ventral fins. It was closely related to another division of the *Physoclysti* which he called the *Hemibranchii*, which has ventral fins, and wants one or more of the outer series of the superior pharyngeal bones, besides other characters. This order embraces the *Fistulariidæ*, *Centriscidæ*, and *Gasterosteidæ*, and should perhaps include the *Lophobranchii* also.

JUNE 20.

The President, Dr. RUSCHENBERGER, in the chair.

Sixteen members present.

The following paper was presented for publication:—

"Synopsis of the genus *Chettusia* (*Lobivanellus*), with a description of a new species." By J. A. Ogden.

JUNE 27.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-one members present.

The following gentlemen were elected members:—

Fred'k W. Endlich, Edw. K. Williams, and Fred'k Gutekunst.

Gen. L. E. Yorke, of Cincinnati, Ohio, was elected a correspondent.

On favorable report of the committees, the following papers were ordered to be published:—